

QUASER

we cut faster

UX SERIES

UX series

Contents

- 01-02 UX500 & UX500APC
- 03-04 UX630 & UX 630APC
- 05-06 UX600 & UX800
- 07-10 Cutting area and interference
- 11-12 Unique spindle technology
- 13-14 Work envelope
- 15-16 ATC system
- 17-18 Thermal management
- 19-20 Ergonomic operation
- 21-22 Coolant & chip management
- 23-28 Technical data Standard / option accessories
- 29-33 Installation dimension
- 34 We build machines in a hybrid way

UX500

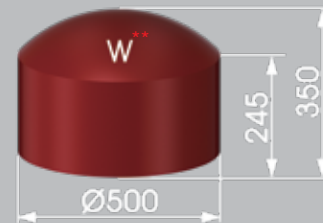
Travel

X : 712 (-400 ~ +312)

Y : 508 (-254 ~ +254)

Z : 515 mm

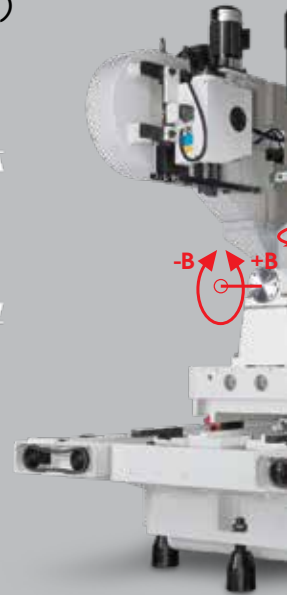
Table size: Ø410 mm
(UX500C - DETRON*)
(UX500P - HIWIN*)



Note: *rotary table brand

**UX500C=200kg

UX500P=250kg



UX500APC

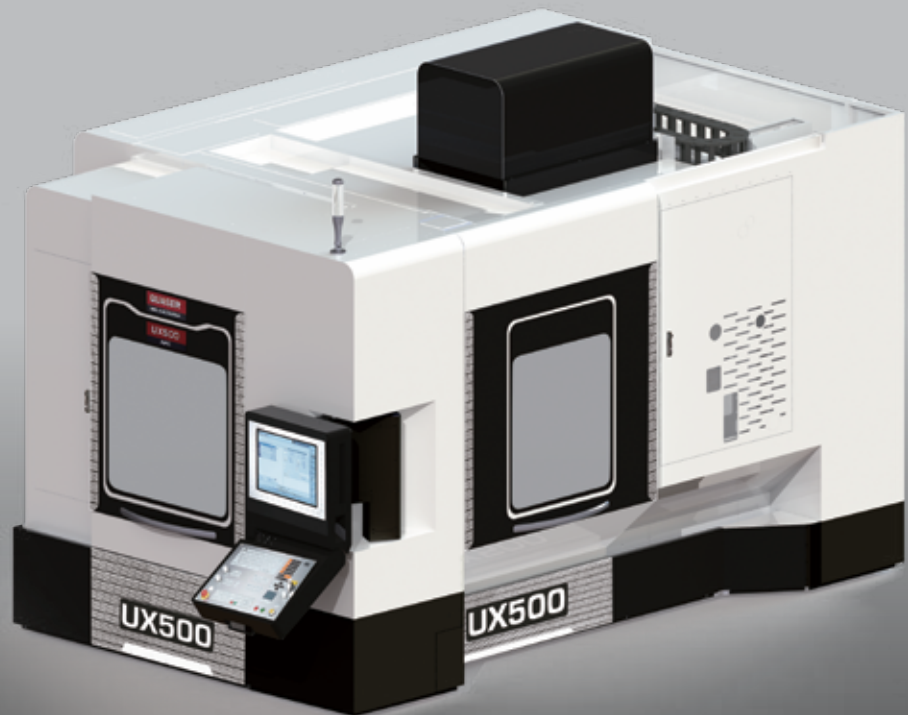
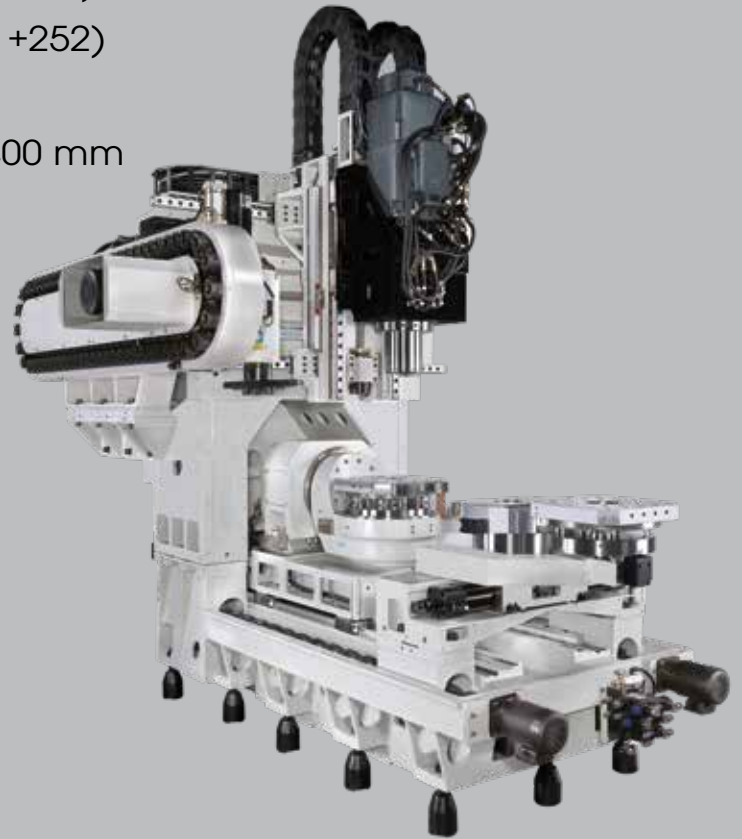
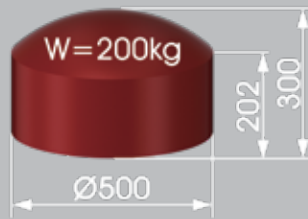
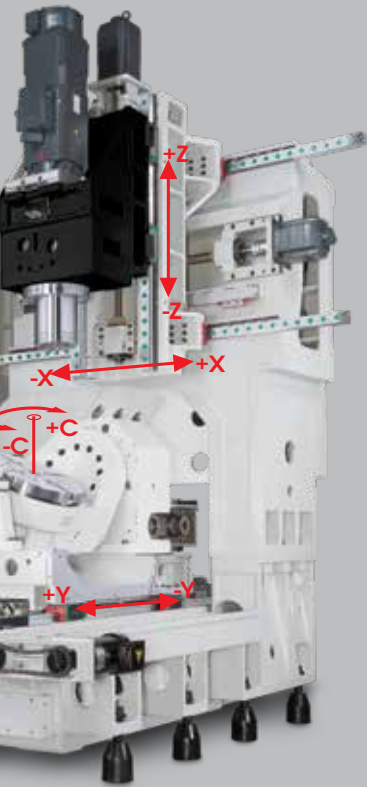
Travel

X : 712 (-400 ~ +312)

Y : 508 (-256 ~ +252)

Z : 515 mm

Table size: □400 mm



UX series

UX630P

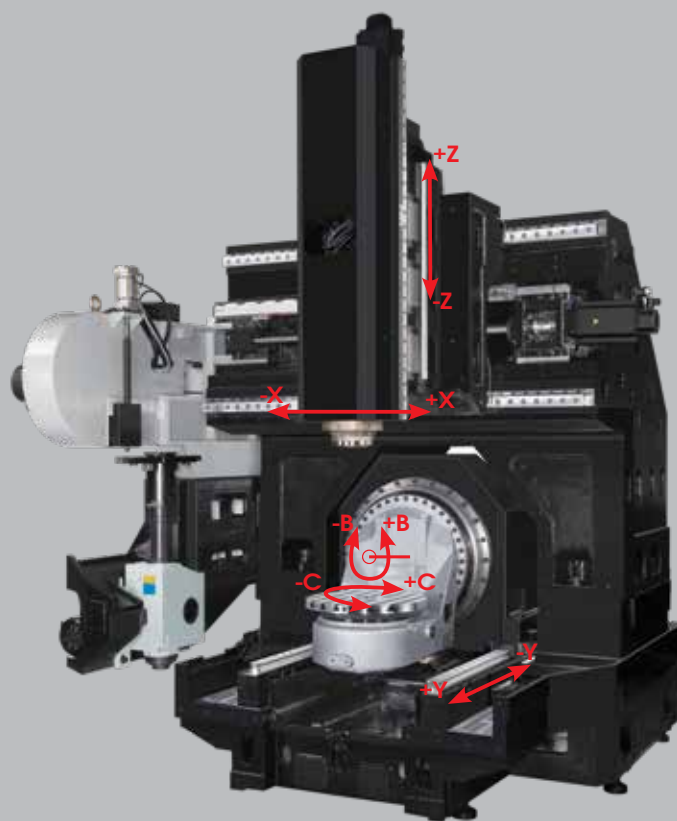
Travel

X : 900 (-450 ~ +450)

Y : 740 (-330 ~ +410)

Z : 610 mm

Table size: $\varnothing 480$ mm



UX630APC

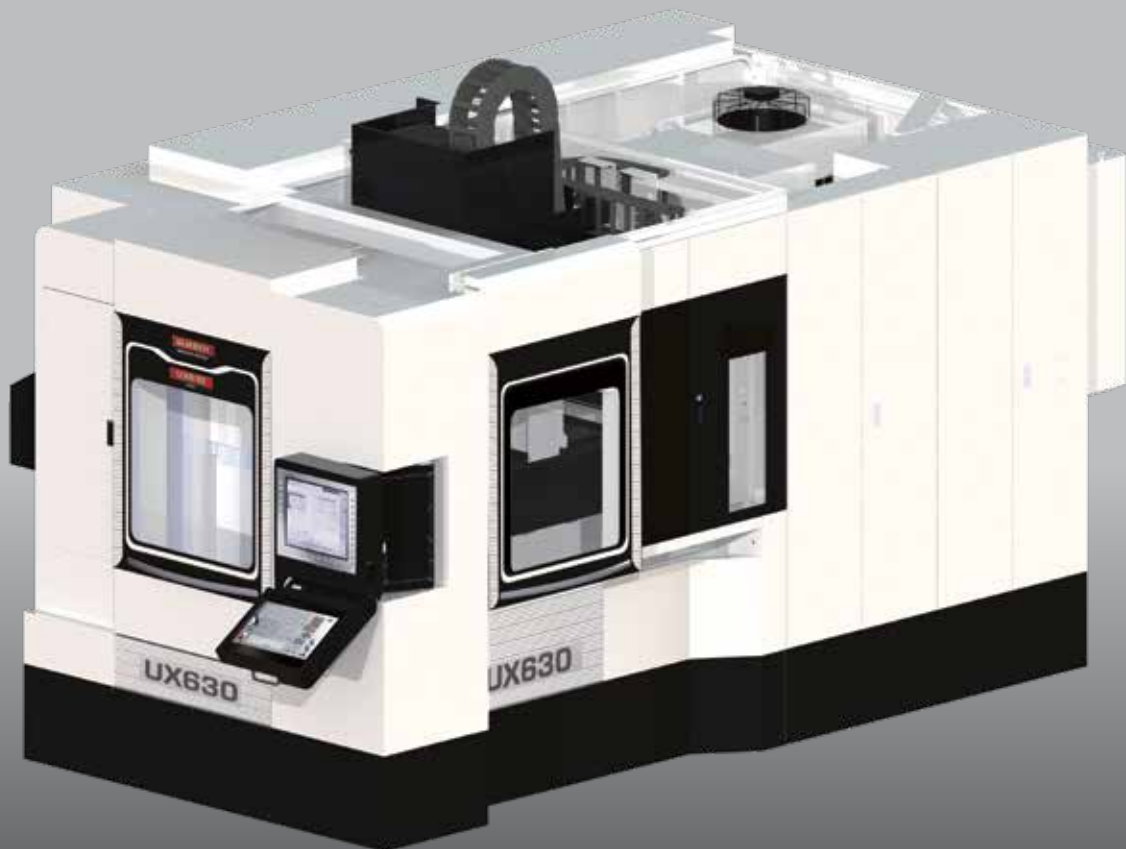
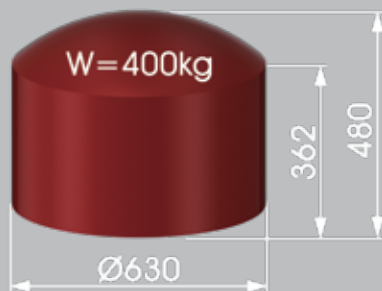
Travel

X : 900 (-450 ~ +450)

Y : 660 (-330 ~ +330)

Z : 610 mm

Table size: □500 mm



UX series

UX600

Travel

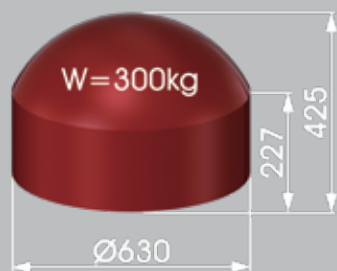
X : 885 (-580 ~ +305)

Y : 800 (+375 ~ -425)

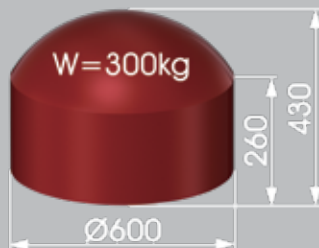
Z : 500 mm

Table size: $\varnothing 500$ mm (UX600C)

$\varnothing 280$ / $\varnothing 600$ x W500 (UX600P)



(UX600C - DETRON*)



(UX600P - MMK MATSUMOTO*)

Note: *rotary table brand



UX800P

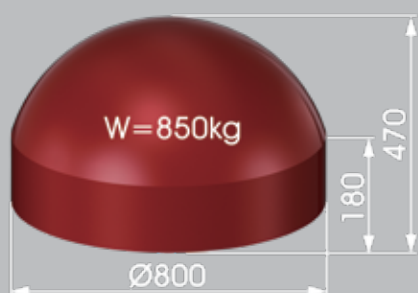
Travel

X : 995 (-625 ~ +370)

Y : 800 (+375 ~ -425)

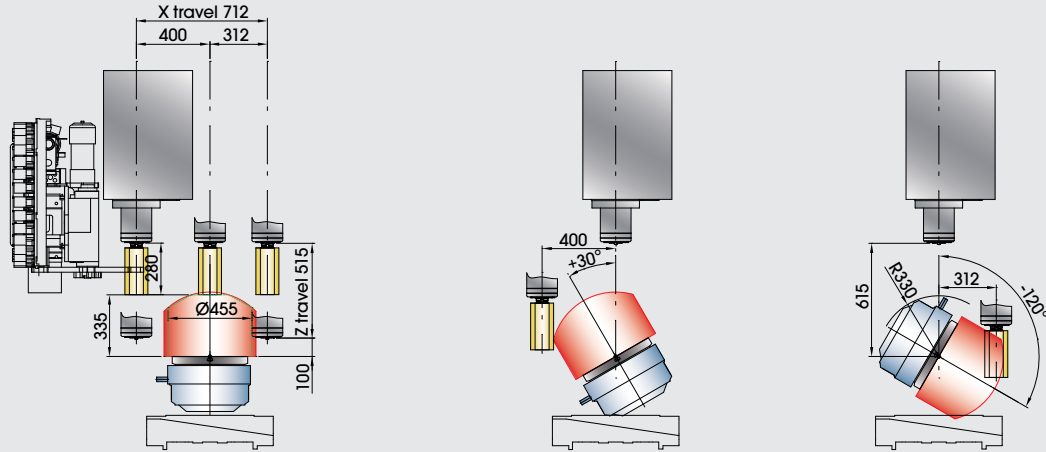
Z : 500 mm

Table size: $\varnothing 630$ mm

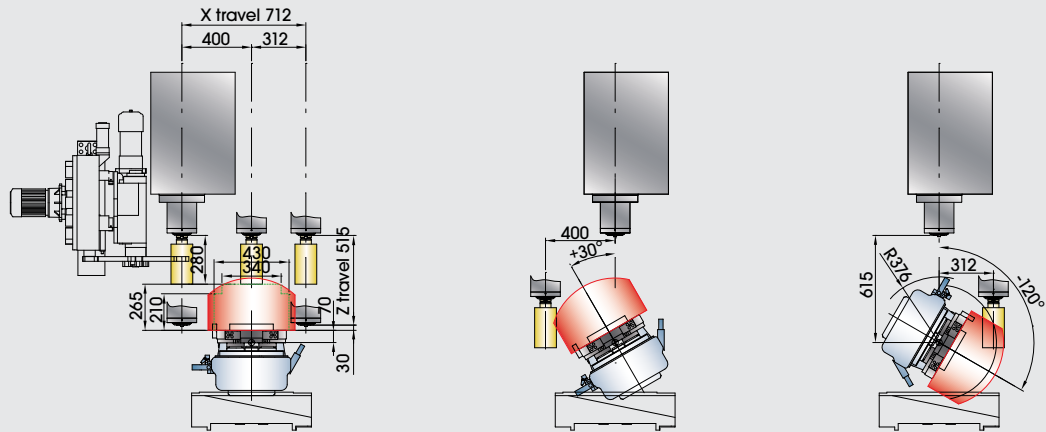


Cutting area and interference

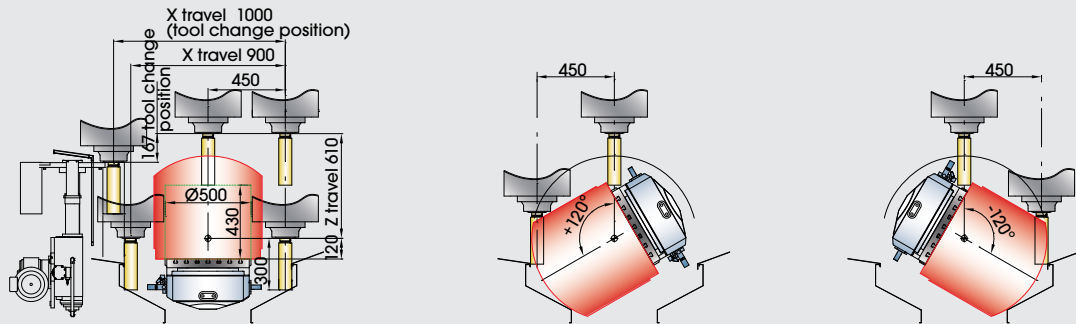
UX500



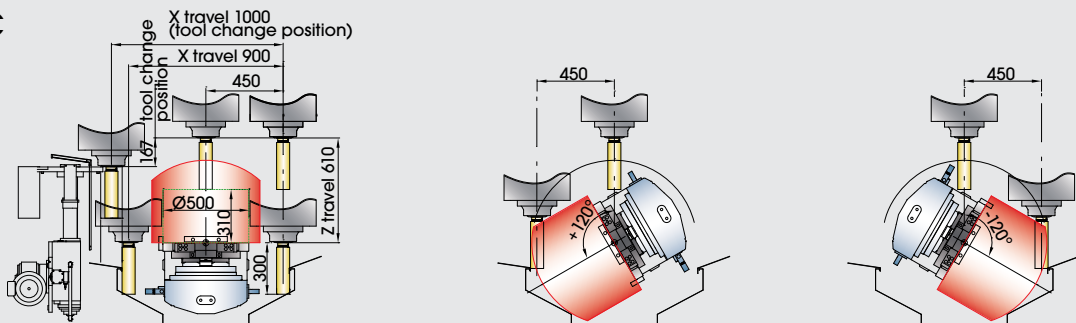
UX500APC



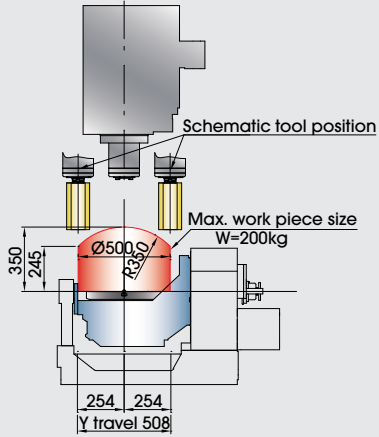
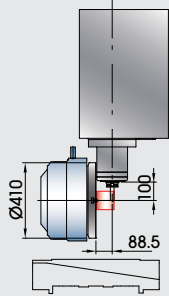
UX630P



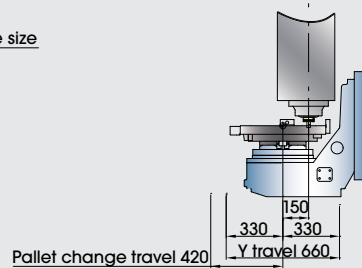
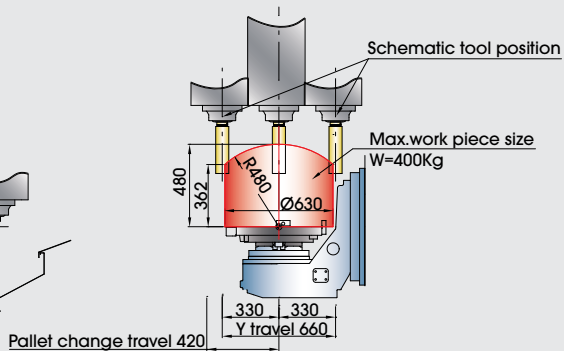
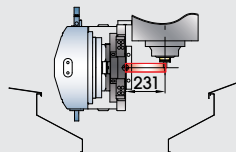
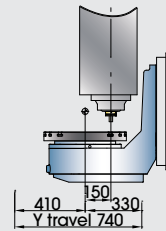
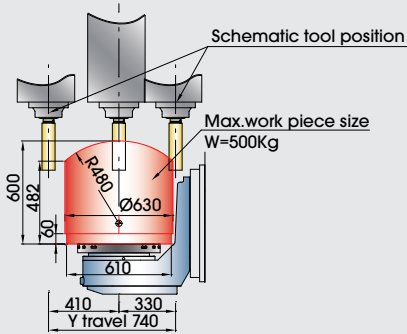
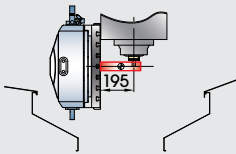
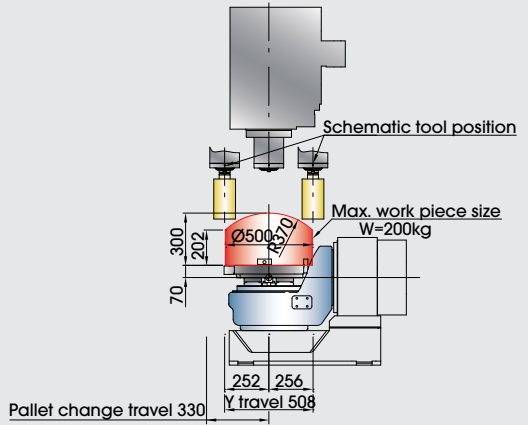
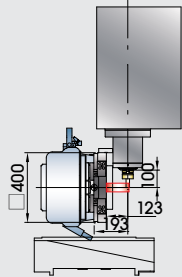
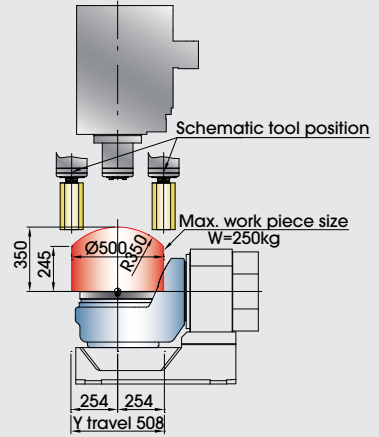
UX630APC



UX500C



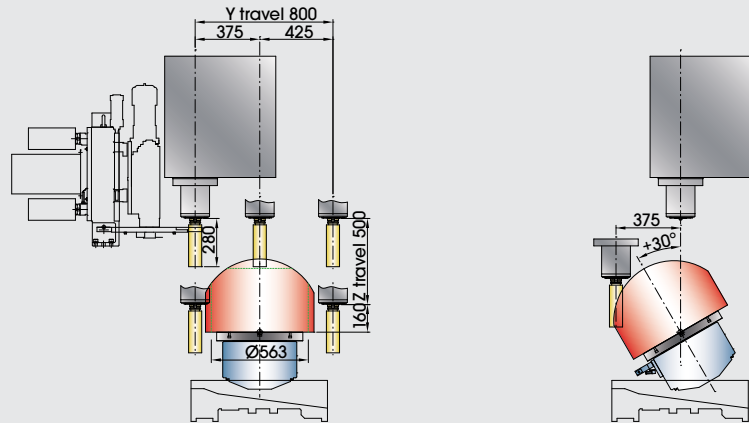
UX500P



Cutting area and interference

UX600C

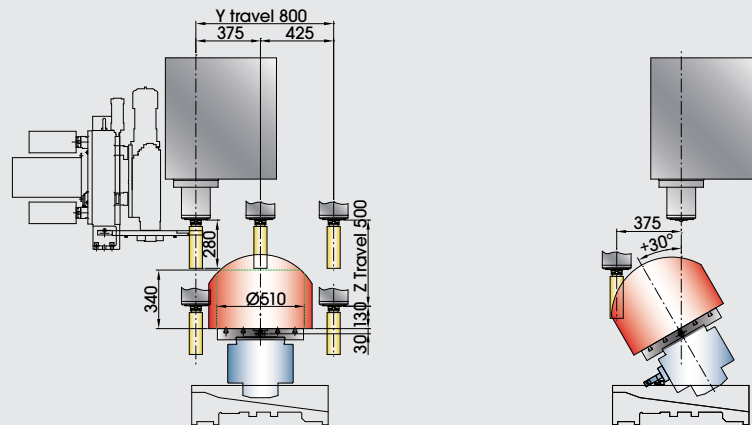
Coupling spindle



UX600P

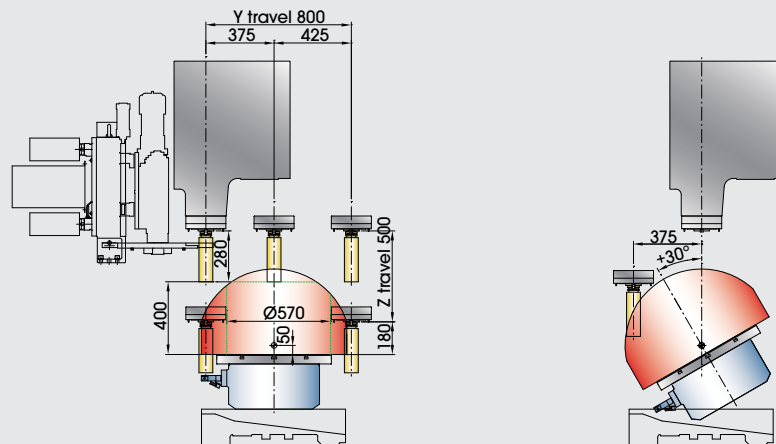
Belt spindle

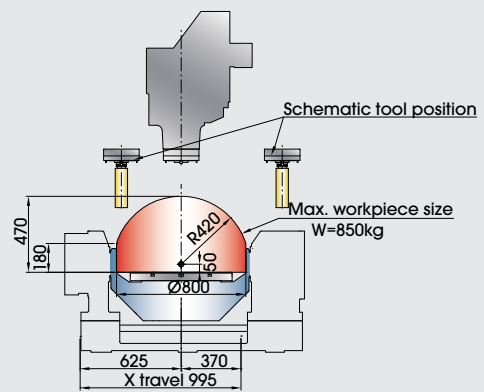
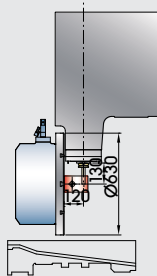
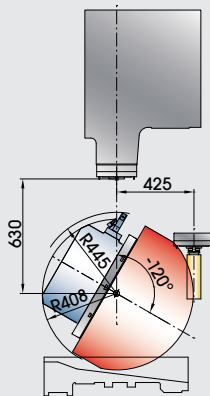
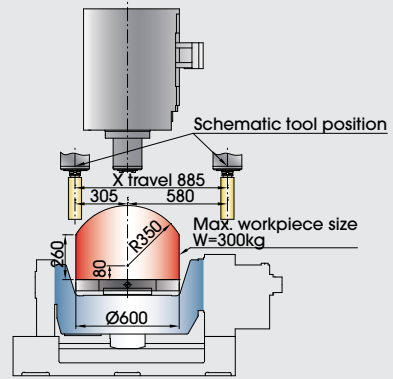
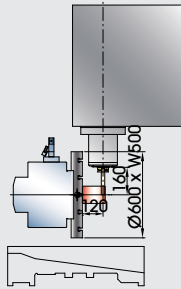
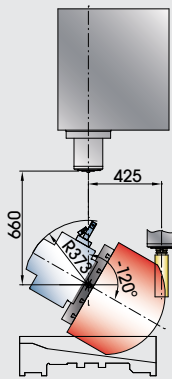
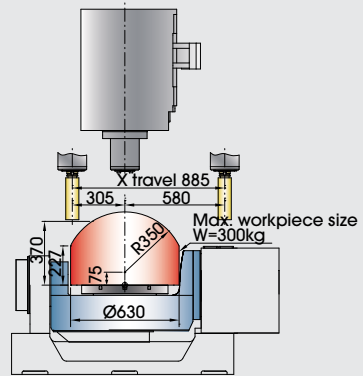
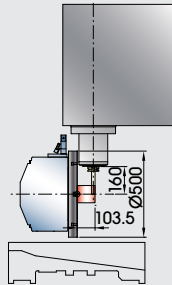
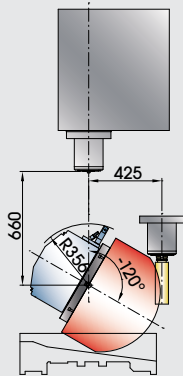
Coupling spindle



UX800P

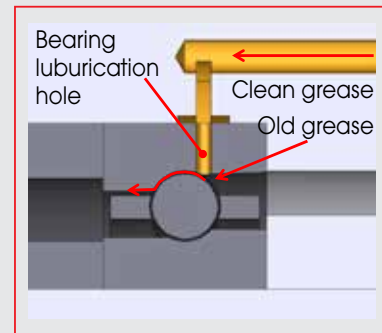
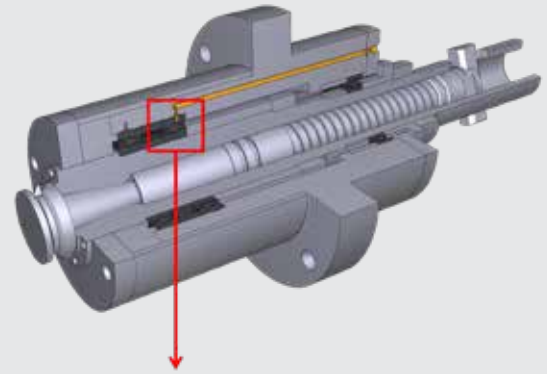
Coupling spindle





Unique spindle technology

- Re-grease supply system is stable and eco-friendly by supplying new grease intermittently to bearings during high speed rotation.



- Standard on all models

| New spindle code | SC-4.2 | | MB-4.0 | |
|---------------------|---------------|--|---------------|--------|
| Shaft diameter | Ø80 / Ø70 | | Ø70 / Ø65 | |
| Spindle Taper | ISO-40 | | ISO-40 | |
| Bearing arrangement | << >> | | < > = | |
| Ball bearing type | Ceramic | | Ceramic | |
| Roller bearing type | - | | Steel | |
| Bearing lubrication | Grease packed | | Grease packed | |
| Transmission | Coupling | | Belt | |
| Spindle Speed | 12,000 | | 9,000 | 12,000 |

| FANUC | | | | |
|--------------------------|----------|-------|------|---|
| Spindle base speed | | 1,500 | | - |
| Spindle output kW | (S3-25%) | 18.5 | 15 | - |
| Spindle output torque Nm | (S3-25%) | 118 | 95.5 | - |

| HEIDENHAIN | | | | | |
|--------------------------|----------|-------|-------|-------|-------|
| Spindle base speed | | 1,500 | 2,000 | 1,125 | 1,500 |
| Spindle output power kW | (S6-25%) | 17 | 27.7 | 32 | |
| Spindle output torque Nm | (S6-25%) | 108 | 132 | 272 | 204 |

| SIEMENS | | | | | |
|--------------------------|----------|-------|---|-------|-------|
| Spindle base speed | | 1,500 | - | 1,125 | 1,500 |
| Spindle output power kW | (S6-25%) | 13.3 | - | 28.5 | |
| Spindle output torque Nm | (S6-25%) | 85 | - | 242 | 182 |
| CTS Availability | | ○* | ○ | ● | ● |

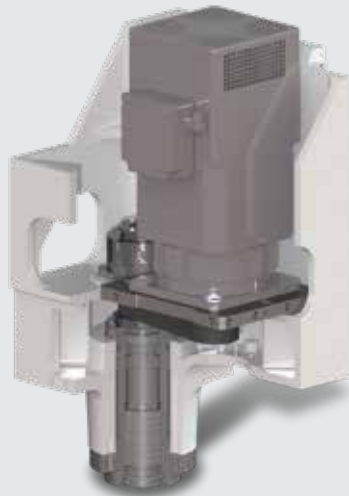
| | | | | |
|----------|-------|-----|-----|-----|
| UX500C | ● ● ● | ● | | |
| UX500P | | | ● ● | ● ● |
| UX500APC | | | ● ● | ● ● |
| UX630 | | | | |
| UX630APC | | | | |
| UX600C | | ● ● | | |
| UX600P | | | ● ● | ● ● |
| UX800P | | | | |

① S3-25% *FANUC not available

Coupling



Belt



Built-in



| MC-4.1R | HM-4.0 | HM-4.0A |
|------------------|----------------------|--------------------|
| Ø80 / Ø65 | Ø80 / Ø60 | Ø80 / Ø60 |
| ISO-40 / HSK A63 | ISO-40 | HSK A63 |
| < > = | << > > | << > > |
| Ceramic | Ceramic | Ceramic |
| Steel | - | - |
| Re-Grease | Grease packed | Oil-air |
| Coupling | | Built-in |
| 15,000 | 12,000 | 18,000 |
| | | |
| 1,400 | - | - |
| 26 | - | - |
| 177 | - | - |
| | | |
| 2,000 | 2,940 | 3,000 |
| 27.7 | 40 ⁽¹⁾ | 46 ⁽¹⁾ |
| 132 | 131.3 ⁽¹⁾ | 146 ⁽¹⁾ |
| | | |
| 2,000 | 2,940 | |
| 27.7 | 40 ⁽¹⁾ | 46 ⁽¹⁾ |
| 132 | 131.3 ⁽¹⁾ | 146 ⁽¹⁾ |
| ● | ● | ● |
| | | |
| ● ● | | |
| ● ● | | |
| | ● ● | ● ● |
| | ● ● | ● ● |
| ● ● | | |
| ● | | |

Work envelope

| UX500 | UX500C | | UX500P / UX500APC | |
|----------------------------|-------------------------|--------------------|-------------------|--------------|
| | Rotary Axis | Tilting Axis | Rotary Axis | Tilting Axis |
| | (C-axis) | (B-axis) | (C-axis) | (B-axis) |
| Drive method | D-D | Worm | D-D | D-D |
| Max. swing piece size (mm) | Ø500 x 350 / Ø500 x 300 | | | |
| Table load capacity (kg) | 200 | | 250 / 200 | |
| Maximum R.P.M | 50 | 16.6(F/S); 22.2(T) | 100 / 100 | 60 / 60 |
| Indexing accuracy (sec) | 8* | 12* | 5* / 5* | 5* / 5* |
| Repeatability (sec) | 4* | 8* | 4* / 4* | 4* / 4* |
| Clamping torque (Nm) | 1,800 | 2,500 | 1,800 | 2,500 |

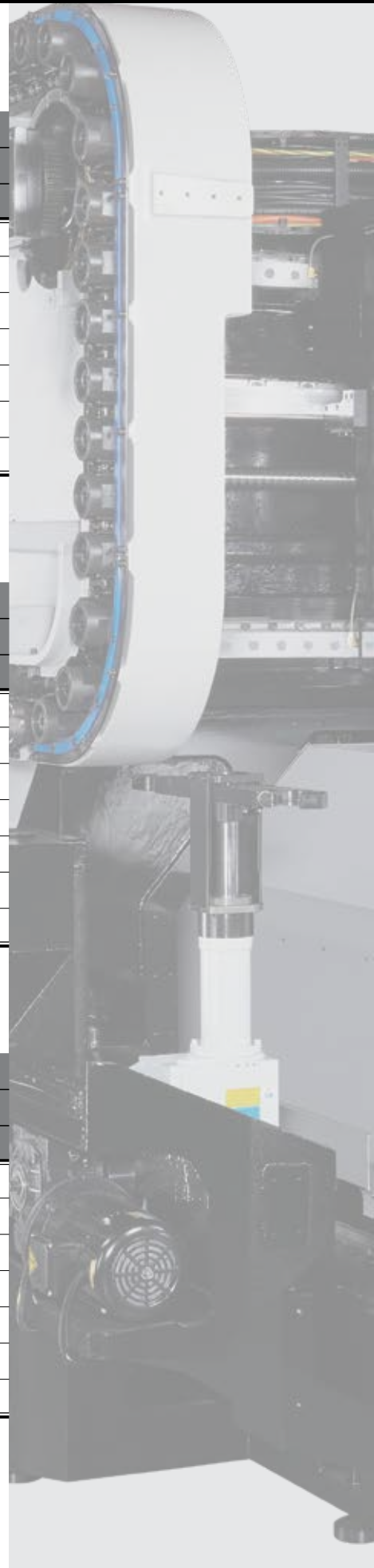
Note: *With absolute rotary encoder

| UX630 | UX630P | | UX630APC | |
|----------------------------|-------------|--------------|-------------|--------------|
| | Rotary Axis | Tilting Axis | Rotary Axis | Tilting Axis |
| | (C-axis) | (B-axis) | (C-axis) | (B-axis) |
| Drive method | D-D | | D-D | |
| Max. swing piece size (mm) | Ø630 x 600 | | Ø630 x 480 | |
| Table load capacity (kg) | 500 | | 400 | |
| Maximum R.P.M | 100 | 60 | 100 | 60 |
| Indexing accuracy (sec) | 5* | 5* | 5* | 5* |
| Repeatability (sec) | 4* | 4* | 4* | 4* |
| Clamping torque (Nm) | 3,200 | 4,200 | 3,200 | 4,200 |

Note: *With absolute rotary encoder

| UX | UX600C / UX600P | | UX800P | |
|------------------------------------|-----------------|---------------|-------------|--------------|
| | Rotary Axis | Tilting Axis | Rotary Axis | Tilting Axis |
| | (C-axis) | (A-axis) | (C-axis) | (A-axis) |
| Drive method | Worm | | D-D | |
| Max. swing (mm) | Ø630 x Ø600 | | Ø800 | |
| Table load capacity (kg) | 300 | | 850 | |
| Maximum R.P.M (min ⁻¹) | 16.6 / 33.3 | 11.1 / 25 | 100 | 60 |
| Indexing accuracy (sec) | 20(12*)/14(10*) | 12* / 10* | 5* | 5* |
| Repeatability (sec) | 12(5*) / 4(2*) | 8* / 5* | 2* | 5* |
| Clamping torque (Nm) | 2,000 / 1,666 | 2,500 / 2,156 | 2,400 | 2,400 x 2 |

Note: *With absolute rotary encoder





Model UX500



Model UX630



Model UX600



Model UX800

ATC system



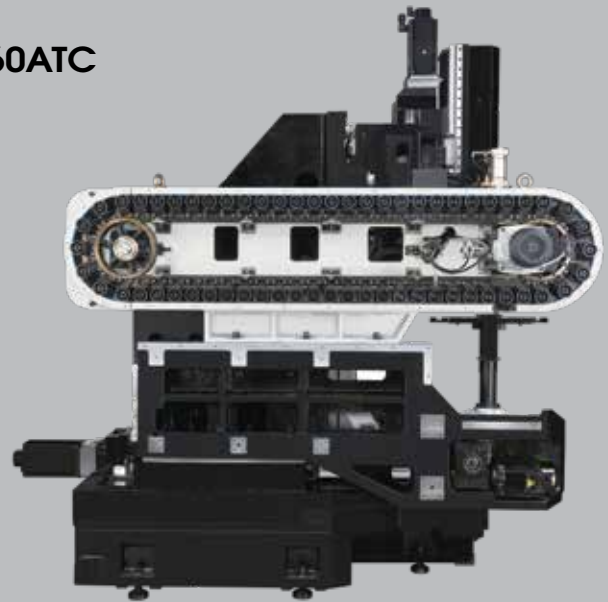


30ATC

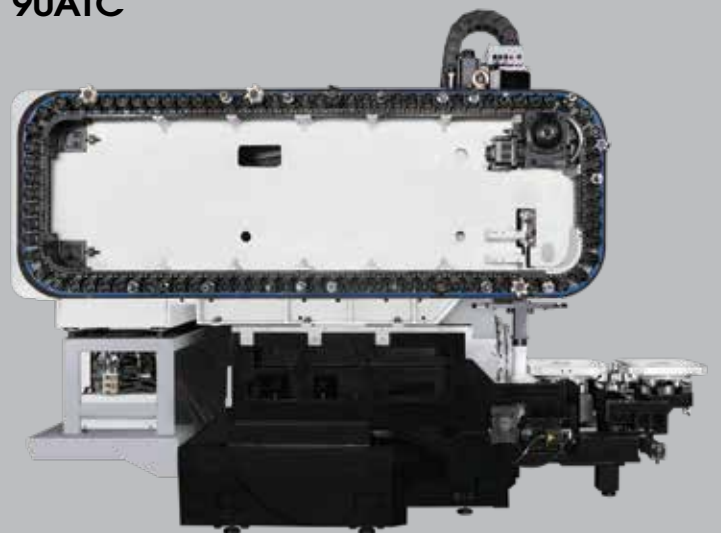


48ATC

60ATC



90ATC

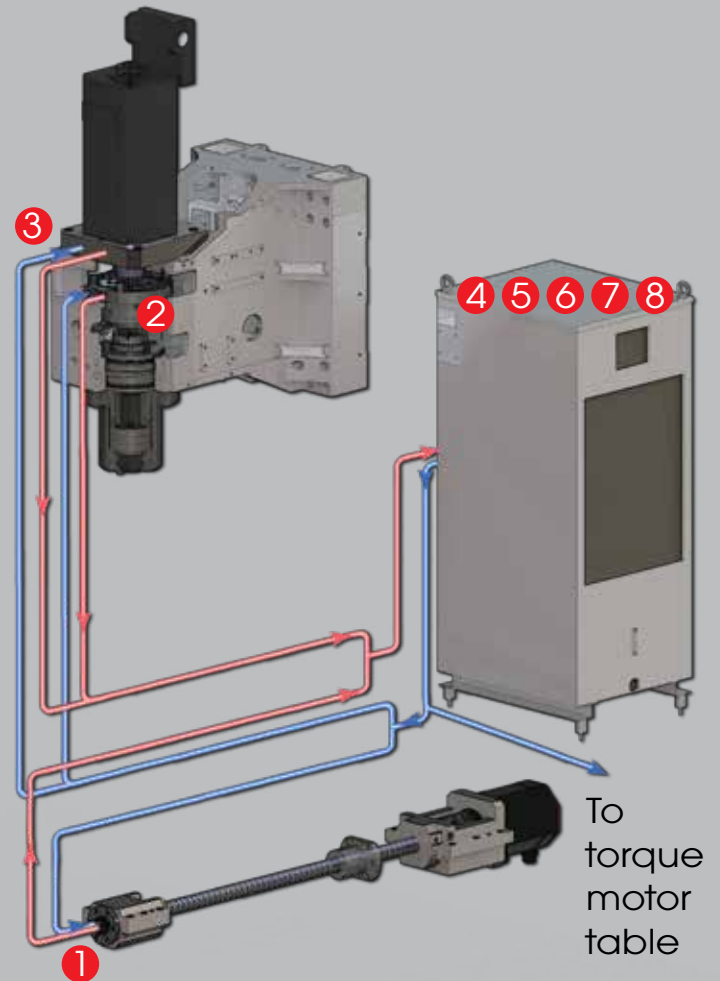


Thermal management

To meet more and more severe "WORKING ACCURACY" requirements, our "THERMAL MANAGEMENT" :

LEVEL I - Standard

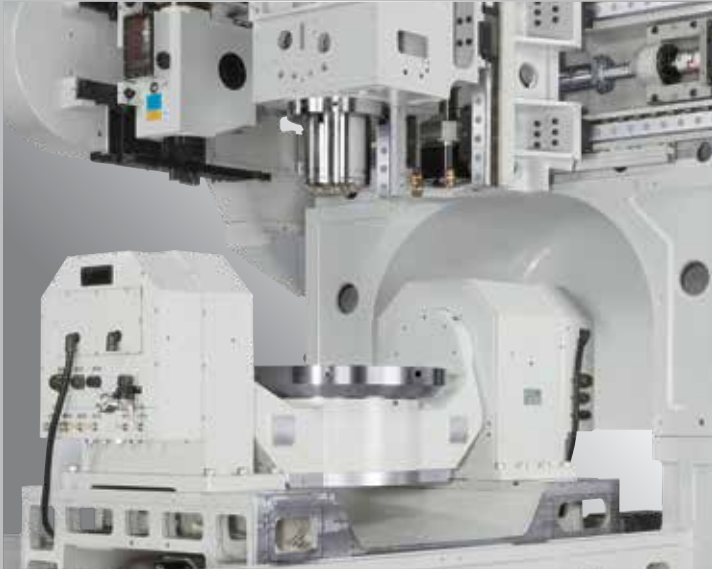
- 1 Coolant through ball screw.
To keep
 - a). Under $\pm 10 \mu\text{m}$ repeatability on X, Y & Z
 - b). Stable rigidity on ball screw system
- 2 Spindle cooling circuit
- 3 Motor mounting block cooling circuit (for coupling spindle)
- 4 Oil chiller 6,000 BTU
- 5 Oil chiller 12,000 BTU
- 6 Oil chiller 24,000 BTU
- 7 Oil chiller 48,000 BTU
- 8 Water chiller



| | UX500C | UX500P / UX500APC | | UX630P / UX630APC | UX600C | UX600P | | UX800P |
|---|----------|-------------------|----------|-------------------|----------|--------|----------|----------|
| | Coupling | Belt | Coupling | Built-in | Coupling | Belt | Coupling | Coupling |
| 1 | ○ | ● | ● | ● | ○ | ● | ● | ● |
| 2 | ● | ● | ● | ● | ● | ● | ● | ● |
| 3 | ● | × | ● | × | ● | × | ● | ● |
| 4 | ● | × | × | × | ● | × | × | × |
| 5 | ○ | × | × | × | ○ | ● | ● | × |
| 6 | × | ● | ● | × | × | × | ○ | × |
| 7 | × | × | × | × | × | × | × | ● |
| 8 | × | × | × | ● | × | × | × | × |

LEVEL II

- 9 Scale on X, Y, Z & C
(Scale on A axis as standard)



- 10 Tool length / breakage measurement (opt.)



LEVEL III

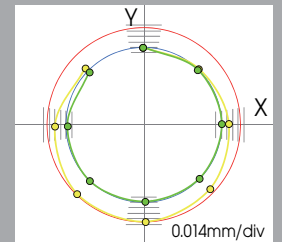
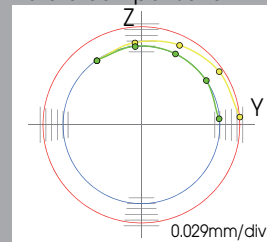
- 11 Thermal comp with probe



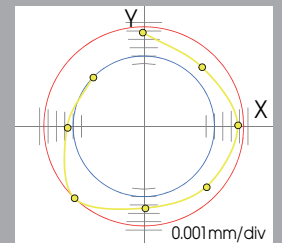
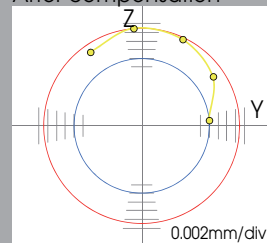
- 12 Touch probe cycles for automatic measurement of rotary axes (opt.)



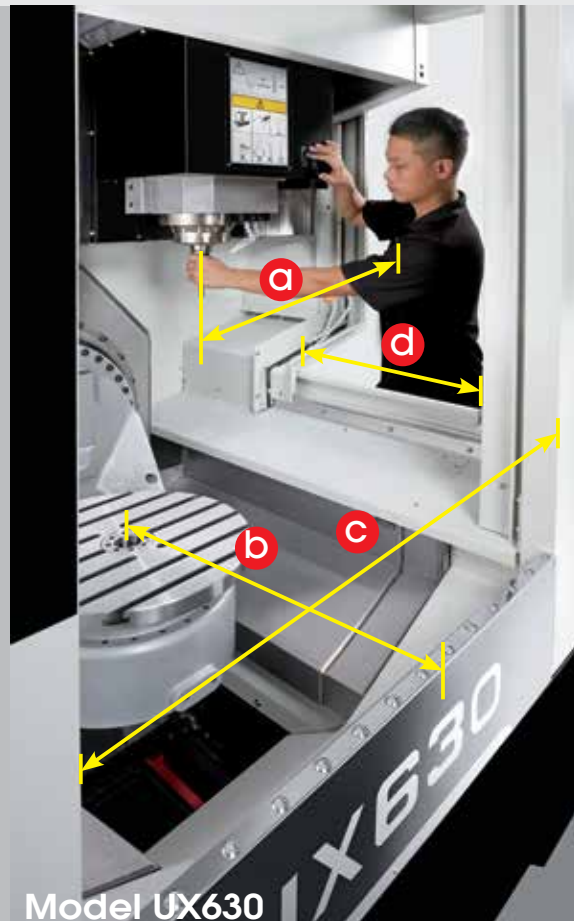
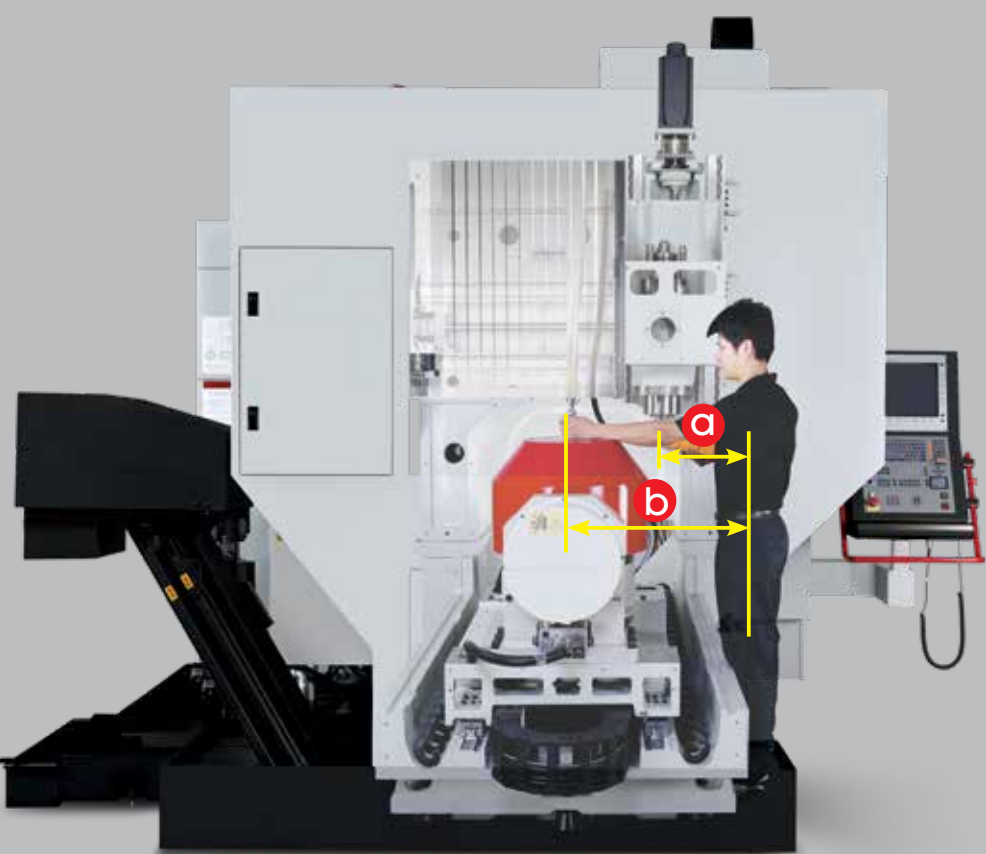
Before compensation



After compensation



Ergonomic operation



Model UX600 Model UX630

| | | UX500 / UX500APC | UX630 / UX630APC | UX600 / UX800 |
|----------|---|---------------------|---------------------|---------------|
| a | Convenient distance from operator to the spindle (mm) | 434 / 458 | 356 | 200 |
| b | From center of table to front door (mm) | 670 / 367 | 565 / 438 | 625 |
| c | Max. size when front door open (mm) | 800 / 850 | 950 / 900 | 830 |
| d | Side door opening (mm) | 840 / 1,050 | 750 / 790 | - |
| e | Ergonomic operation panel with adjustable angle | Std. | | - |
| f | Documentation & hand tool shelf | Std. | | - |
| g | Tool loading / unloading on magazine side | Std. | | - |
| h | Centralized configuration of lubrication and pneumatic panel | Std. | | - |
| i | Our hydraulic and oil chiller are integrated into the machine design for clean appearance, minimal floor requirement and easy access for service. | - | Std. | - |



Coolant & chip management

| | UX500C | UX500P / UX500APC | UX630P / UX630APC | UX600C | UX600P | UX800P |
|-------------------------|--------|----------------------|----------------------|---------|--------|--------|
| Coolant tank | 450 L | | 400 L | 400 L | | |
| Coolant through spindle | Opt. | 20 bar | 20 bar | 20 bar | | |
| Nozzle coolant | 3 bar | | 3.5 bar | 3.5 bar | | |
| Wash gun | Std. | | Std. | Std. | | |
| Chip augers | Std. | | - | Std. | | |
| Ceiling wash down | Std. | | Std. | - | | |
| wash down | 3 bar | | 3.5 bar | 3 bar | | |



Model UX500



Model UX630

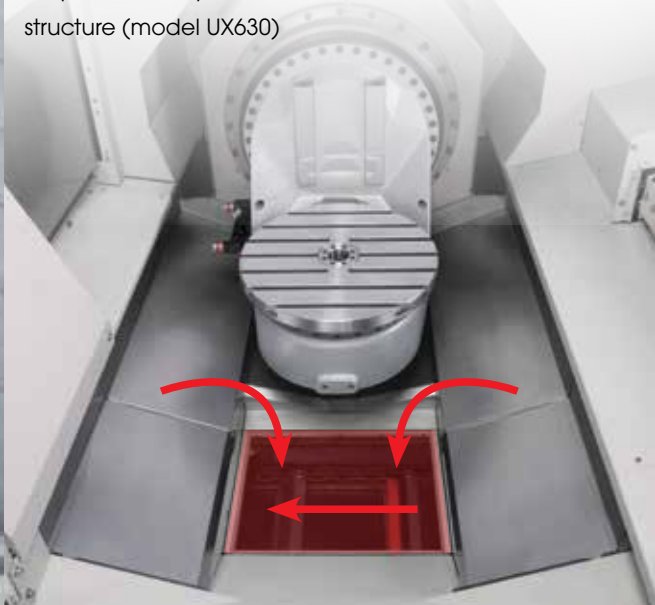


Model UX600



Model UX500

Chips fall directly to avoid thermal effects on structure (model UX630)



Contorl: (F) = FANUC (T) = HEIDENHAIN (S) = SIEMENS

| Technical data | UX500 | | UX500 / UX500APC | | |
|---|---|--------|---|--------|--------|
| | C | | P | | |
| | Multi face | 5 axes | 5 axes | | |
| Spindle code | 12C | | 9B | 12B | 15C |
| Work range | | | | | |
| Table size (mm) | Ø410 | | Ø410 / □400 | | |
| Travel X / Y / Z (mm) | 712 (-400 ~ +312) / 508 (-254 ~ +254) / 515 | | 712 (-400 ~ +312) / 508 (-256 ~ +252) / 515 | | |
| B / C (degree) | +30° ~ -120° / 360° (Continuous) | | | | |
| Max. swing (mm) | Ø500 | | | | |
| Table surface to spindle nose (mm) | 100 ~ 615 | | 100 ~ 615 / 30 ~ 545 | | |
| Spindle nose to tilting center at 90° (mm) | 100 ~ 615 | | 100 ~ 615 | | |
| Max. work piece size (mm) | Ø500 x 350 ⁽¹⁾ | | Ø500 x 350 ⁽¹⁾ / Ø500 x 300 | | |
| Table load capacity (kg) | 200 | | 250 / 200 | | |
| Feed drive | 6,283 / 6,283 / 11,519 (F) | | 10,472 / 10,472 / 14,137 (S) | | |
| Feed force X / Y / Z (N) | 6,283 / 6,283 / 10,472 (S) | | 11,310 / 11,310 / 13,666 (T) | | |
| Rapid movement X / Y / Z (m / min) | 9,268 / 9,268 / 11,310 (T) | | 36 / 36 / 36 | | |
| B / C (min ⁻¹) | B=22.2 (F;T) 16.6 (F;S) / C=50 | | B=60 / C=100 | | |
| Acceleration X / Y / Z (m/s ²) | 3 / 3 / 2.5 (F)(S)(T) | | 5 / 5 / 5 (S)(T) | | |
| Dia. & pitch of the ball screw | | | Ø40 / P = 12 / 12 / 12 | | |
| Accuracy Positioning / Repeatability | | | | | |
| ISO 230-2 | | | 0.008 / 0.004 | | |
| JIS 6338 (300 mm) | | | ±0.003 / ±0.002 | | |
| VDI3441 | | | 0.008 / 0.004 | | |
| Main spindle | | | | | |
| Spindle taper | | | BBT 40 | | |
| Max. spindle speed | 12,000 | | 9,000 | 12,000 | 15,000 |
| Tool changer | | | | | |
| Tool selection | | | Random | | |
| Magazine positions | 30 (std.) 48 / 60 (opt.) | | 48 (std.) 60 (opt.) | | |
| Max. tool diameter w/o adjacent tool (mm) | | | Ø76.2 / Ø125 | | |
| Max. tool length (mm) | | | 280 | | |
| Max. tool weight (kg) | | | 7 | | |
| Tool to tool time (sec.) | | | 1.7 | | |
| Chip to chip time (sec.) | 9.1 | | 8.9 | | |
| Pallet changer | | | | | |
| Number of pallet | - | | - / 2 | | |
| Method of pallet changer | - | | - / Swing type | | |
| Pallet change time (sec.) | - | | - / 12 | | |
| Pallet changing repeatability | - | | - / 0.01 | | |
| Coolant system | | | | | |
| Coolant tank capacity (Liter) | | | 450 | | |
| Pump capacity | | | 75 L / min., 3 bar | | |
| - Nozzle coolant | | | 75 L / min., 3 bar | | |
| - Coolant through spindle | Opt. | | 25 L / min., 20 bar | | |
| - Wash down | 75 L / min., 3 bar | | 75 L / min., 3 bar | | |
| Machine size | | | | | |
| Height (mm) | 3,350 | | 3,350 | | |
| Floor space W x D (mm) | 2,720 x 3,900 | | 2,720 x 3,900 3,900 x 4,480 | | |
| Weight (kg) | 8,430(30ATC) 8,730(48ATC) | | 8,930(60ATC) 10,300(48ATC) 10,500(60ATC) | | |
| Connections | | | | | |
| Main power | | | 220V / 60Hz or 400V / 50Hz | | |
| Power consumption (KVA) | 27(F) 25(S) 30(T) | | 38(S) 40(T) | | |

Note: ⁽¹⁾Please refer to actual max. workpiece interference diagram.

Contorl: (T) = HEIDENHAIN (S) = SIEMENS

| Technical data | UX630 | | UX630APC | |
|---|-------------------------------|-----------------------------------|---------------------------|-----------------------------------|
| | P | | | |
| | 5 axes | | | |
| Spindle code | 12M | 18M | 12M | 18M |
| Work range | | | | |
| Table size (mm) | Ø480 | | □500 | |
| Travel | X / Y / Z (mm) | 900(-450~+450)/740(-330~+410)/610 | | 900(-450~+450)/660(-330~+330)/610 |
| | B / C (degree) | ± 120° / 360° (Continuous) | | |
| Max. swing (mm) | Ø630 ⁽¹⁾ | | | |
| Table surface to spindle nose (mm) | 120 ~ 730 | | 0 ~ 610 | |
| Spindle nose to tilting center at 90° (mm) | 0 ~ 610 | | 0 ~ 610 | |
| Max. work piece size (mm) | Ø630 x 600 ⁽¹⁾ | | Ø630 x 480 ⁽¹⁾ | |
| Table load capacity (kg) | 500 | | 400 | |
| Feed drive | | | | |
| Feed force | X / Y / Z (N) | 10,249 / 18,692 / 10,249 (T) | | 10,603 / 14,137 / 10,603 (S) |
| Rapid movement | X / Y / Z (m / min) | 48 / 48 / 48 | | |
| | B / C (min ⁻¹) | B=60 / C=100 | | |
| Acceleration | X / Y / Z (m/s ²) | 8 / 7 / 10 (T) | | 6 / 4.1 / 4 (S) |
| Dia. & pitch of the ball screw | Ø40 / P = 16 / 16 / 16 | | | |
| Accuracy Positioning / Repeatability | | | | |
| ISO 230-2 | 0.008 / 0.004 | | | |
| JIS 6338 (300 mm) | ± 0.003 / ± 0.002 | | | |
| VDI3441 | 0.008 / 0.004 | | | |
| Main spindle | | | | |
| Spindle taper | BBT 40 | HSK A63 | BBT 40 | HSK A63 |
| Max. spindle speed | 12,000 | 18,000 | 12,000 | 18,000 |
| Tool changer | | | | |
| Tool selection | Random | | | |
| Magazine positions | 48 (std.) 60 / 90 (opt.) | | | |
| Max. tool diameter w/o adjacent tool (mm) | Ø76.2 / Ø125 | | | |
| Max. tool length (mm) | 300 | | | |
| Max. tool weight (kg) | 7 | | | |
| Tool to tool time (sec.) | 1.7 (< 6kg) | | | |
| Chip to chip time (sec.) | 7.2 | | | |
| Pallet changer | | | | |
| Number of pallet | - | | 2 | |
| Method of pallet changer | - | | Swing type | |
| Pallet change time (sec.) | - | | 12.1 | |
| Pallet changing repeatability (mm) | - | | 0.01 | |
| Coolant system | | | | |
| Coolant tank capacity (Liter) | 400 | | | |
| Pump capacity | | | | |
| - Nozzie coolant | 75 L / min., 3.5 bar | | | |
| - Coolant through spindle | 25 L / min., 20 bar | | | |
| - Wash down | 75 L / min., 3.5 bar | | 125 L / min | |
| Machine size | | | | |
| Height (mm) | 3,520 | | | |
| Floor space W x D (mm) | 48 / 60 / 90ATC | 3,920 x 4,810 | | 3,920 x 5,245 |
| Weight (kg) | 48ATC | 15,350 | | 16,250 |
| | 60 / 90ATC | 15,500 / 16,300 | | 16,400 / 17,200 |
| Connections | | | | |
| Main power | 220V / 60Hz or 400V / 50Hz | | | |
| Power consumption (KVA) | 72(T) 69(S) | | | |

Note: ⁽¹⁾Please refer to actual max. workpiece interference diagram.

● = Standard ○ = Option × = N / A

| Standard / Option accessories | UX500 | | UX500 / UX500APC | | |
|---|------------|--------|------------------|-------|-------|
| | C | | P | | |
| | Multi face | 5 axes | 5 axes | | |
| Spindle code | 12C | | 9B | 12B | 15C |
| ■ QUASER mill i (4+1 Axes) | ● | × | × | × | × |
| ■ HEIDENHAIN TNC620 (4+1 Axes) | ○ | × | × | × | × |
| ■ HEIDENHAIN TNC640 (5 Axes) | × | ○ | ○ | ● | ○ |
| HEIDENHAIN advanced function set2 | × | ○ | ○ | ● | ○ |
| ■ SIEMENS 828D (PPU290) | ○ | × | × | × | × |
| ■ SIEMENS 840D | × | × | ○ | ○ | ○ |
| ■ Oil chiller | ● | ● | ● | ● | ● |
| ■ 40 taper / 30 position tool magazine | ● | ● | × | × | × |
| ■ 40 taper / 48 position tool magazine | ○ | ○ | ● | ● | ● |
| ■ 40 taper / 60 position tool magazine | ○ | ○ | ○ | ○ | ○ |
| ■ Pull stud for BT tooling | ○ | ○ | ● | ● | ● |
| ■ Balance tooling for spindle warm up | ○ | ○ | ● | ● | ● |
| ■ BBT spindle attachment (Simultaneous contact) | ● | ● | ● | ● | ● |
| ■ ATC auto door | ● | ● | ● | ● | ● |
| ■ X / Y / Z linear scale | ○ | ○ | ○ | ○ | ○ |
| ■ Rotary encoder on B & C axes | ● | ● | ● | ● | ● |
| ■ Remote manual pulse generator | ● | ● | ● | ● | ● |
| ■ Transformer ⁽¹⁾ | ○ | ○ | ○ | ○ | ○ |
| ■ Work probe receive OMI-2T | ● | ● | ● | ● | ● |
| ■ Work probe OMP-40 | ○ | ○ | ● | ● | ● |
| ■ Reference rod (for thermal comp with probe) | ● | ● | ● | ● | ● |
| ■ Tool length / breakage measurement ⁽²⁾ | ○ | ○ | ○ | ○ | ○ |
| ■ 5 Port through table ⁽³⁾ | ○ | ○ | ● / × | ● / × | ● / × |
| ■ Air pressure detector for pallet clamping | × | × | × / ● | × / ● | × / ● |
| ■ 4 port through pallet ^{(3) (4)} | × | × | × / ○ | × / ○ | × / ○ |
| ■ Coolant system | ● | ● | ● | ● | ● |
| ■ Coolant through ball screw | ○ | ○ | ● | ● | ● |
| ■ Coolant through spindle 20 bar | ○ | ○ | ● | ● | ● |
| ■ Coolant wash gun | ● | ● | ● | ● | ● |
| ■ Coolant wash down | ● | ● | ● | ● | ● |
| ■ Air gun | ○ | ○ | ○ | ○ | ○ |
| ■ Chip conveyor | ● | ● | ● | ● | ● |
| ■ Chip augers | ● | ● | ● | ● | ● |
| ■ Cutter air blast | ● | ● | ● | ● | ● |
| ■ Oil-mist collector | ○ | ○ | ○ | ○ | ○ |
| ■ Bag filtration | ○ | ○ | ○ | ○ | ○ |
| ■ Filtration unit | ○ | ○ | ○ | ○ | ○ |
| ■ Documentation (CD-ROM) ⁽⁵⁾ | ● | ● | ● | ● | ● |
| ■ Total Enclosure Guard (with Top side cover) | ● | ● | ● | ● | ● |
| ■ Work light | ● | ● | ● | ● | ● |
| ■ Machine status light | ● | ● | ● | ● | ● |
| ■ CE & EMC ⁽⁶⁾ / GB | ○ | ○ | ○ | ○ | ○ |

Note: ⁽¹⁾ Transformer as standard or option item will be varied according to control system and power supply condition.

⁽²⁾ APC only laser type. ⁽³⁾ Without Solenoid valve and control. ⁽⁴⁾ Factory mounted only.

⁽⁵⁾ Paper documentation is option. ⁽⁶⁾ As standard for Europe area.

- Machine specification might be different from the catalog if any specification update.

| Standard / Option accessories | UX630 | UX630APC |
|---|---------|----------|
| | P | |
| | 5 axes | |
| Spindle code | 12M/18M | 12M/18M |
| ■ HEIDENHAIN TNC640 (5 Axes) | ● | ● |
| HEIDENHAIN advanced function set2 | ● | ● |
| ■ SIEMENS 840D (5 Axes) | ○ | ○ |
| ■ Water chiller | ● | ● |
| ■ 40 taper / 48 position tool magazine | ● | ● |
| ■ 40 taper / 60 position tool magazine | ○ | ○ |
| ■ 40 taper / 90 position tool magazine | ○ | ○ |
| ■ Balance tooling for spindle warm up | ● | ● |
| ■ BBT spindle attachment (Simultaneous contact) | ● | ● |
| ■ ATC auto door | ● | ● |
| ■ X / Y / Z linear scale | ○ | ○ |
| ■ Rotary encoder on B / C axes | ● | ● |
| ■ Remote manual pulse generator | ● | ● |
| ■ Transformer ⁽¹⁾ | ○ | ○ |
| ■ Work probe receive RMI-Q | ● | ● |
| ■ Work probe RMP-40 | ● | ● |
| ■ Reference rod (for thermal comp with probe) | ● | ● |
| ■ Tool length / breakage measurement ⁽²⁾ | ○ | ○ |
| ■ 5 Port through table ⁽³⁾ | ● | ✕ |
| ■ Air pressure detector for pallet clamping | ✕ | ● |
| ■ 4 port through pallet ^{(3) (4)} | ✕ | ○ |
| ■ Coolant system | ● | ● |
| ■ Coolant through ball screw | ● | ● |
| ■ Coolant through spindle 20 bar | ● | ● |
| ■ Coolant through spindle 50 bar | ○ | ○ |
| ■ Coolant wash gun | ● | ● |
| ■ Coolant wash down | ● | ● |
| ■ Air gun | ○ | ○ |
| ■ Chip conveyor | ● | ● |
| ■ Cutter air blast | ● | ● |
| ■ Oil-mist collector | ○ | ○ |
| ■ Filtration unit | ○ | ○ |
| ■ Documentation (CD-ROM) ⁽⁵⁾ | ● | ● |
| ■ Total Enclosure Guard (with Top side cover) | ● | ● |
| ■ Work light | ● | ● |
| ■ Machine status light | ● | ● |
| ■ CE & EMC ⁽⁶⁾ | ○ | ○ |

Note: ⁽¹⁾ Transformer as standard or option item will be varied according to control system and power supply condition.

⁽²⁾ Only laser type. ⁽³⁾ Without Solenoid valve and control. ⁽⁴⁾ Factory mounted only.

⁽⁵⁾ Paper documentation is option.

⁽⁶⁾ As standard for Europe area.

- Machine specification might be different from the catalog if there is any specification update.

Contorl: (F) = FANUC (T) = HEIDENHAIN (S) = SIEMENS

| Technical data | UX600 | | | | | UX800 |
|---|---|------------------------------------|------------------------------|--------|--------|-------------------------|
| | C | | P | | | P |
| | Multi face | 5 axes | 5 axes | | | |
| Spindle code | 12C | | 9B | 12B | 15C | 15C |
| Work range | | | | | | |
| Table size (mm) | Ø500 | | Ø280 / Ø600 x W500 | | | Ø630 |
| Travel | X (mm) | 885 (-580 ~ +305) | 885 (-580 ~ +305) | | | 995 (-625~+370) |
| | Y (mm) | 800 (+375 ~ -425) | 800 (+375 ~ -425) | | | 800 (+375~-425) |
| | Z (mm) | 500 | 500 | | | 500 |
| | A (degree) | +30° ~ -120° | +30° ~ -120° | | | +30° ~ -120° |
| | C (degree) | 360° (Continuous) | 360° (Continuous) | | | 360° (Continuous) |
| Max. swing (mm) | Ø630 | | Ø600 | | | Ø800 |
| Table surface to spindle nose (mm) | 160 ~ 660 | | 130 ~ 630 | | | 180 ~ 680 |
| Spindle nose to tilting center at 90° | 160 ~ 660 | | 160 ~ 660 | | | 130 ~ 630 |
| Max. work piece size (mm) | Ø630 x 425 | | Ø600 x 430 | | | Ø800 x 470 |
| Table load capacity (kg) | 300 | | 300 | | | 850 |
| Feed drive | 11,519 / 11,519 / 11,519 (F) | | 13,666 / 13,666 / 13,666 (T) | | | 19,897/13,666/13,666(T) |
| Feed force | X / Y / Z (N) | 13,666 / 13,666 / 13,666 (T) | 14,137 / 14,137 / 14,137 (S) | | | |
| Rapid movement | X / Y / Z (m / min) | 36 / 36 / 36 | 36 | | | 36 |
| | A / C (min ⁻¹) | A=11.1 / C=16.6 | A=25 / C=33.3 | | | A=60 / C=100 |
| Acceleration | X / Y / Z (m/s ²) | 3 / 4 / 4 (F) 3 / 4.5 / 4.5 (T) | 5 / 5.5 / 5.5 (T)(S) | | | 5 / 5.5 / 5.5 (T) |
| Dia. & pitch of the ball screw | Ø45 / P = 12 / 12 / 12 | | | | | |
| Accuracy Positioning / Repeatability | | | | | | |
| ISO 230-2 | 0.008 / 0.004 | | | | | |
| JIS 6338 (300 mm) | ±0.003 / ±0.002 | | | | | |
| VDI3441 | 0.008 / 0.004 | | | | | |
| Main spindle | | | | | | |
| Spindle taper | BBT 40 | | | | | |
| Max. spindle speed | 12,000 | 9,000 | 12,000 | 15,000 | 15,000 | |
| Tool changer | | | | | | |
| Tool selection | Random | | | | | |
| Magazine positions | 30 (std.) 48 & 60 (opt.) | 48 (std.) 60 (opt.) | | | | |
| Max. tool diameter (mm) | 76.2 | | | | | |
| w/o adjacent tool (mm) | 125 | | | | | |
| Max. tool length (mm) | 280 | | | | | |
| Max. tool weight (kg) | 7 | | | | | |
| CTC time-ISO 10791-9 (sec.) | 7.2 (F) 6.9 (T) | 6.7 | | | | |
| Coolant system | | | | | | |
| Coolant tank capacity (Liter) | 400 | | | | | |
| Pump capacity | | | | | | |
| - Nozzie coolant | 60 L / min., 3.5 bar | | | | | |
| - Through spindle coolant | 25 L / min., 20 bar | | | | | |
| - Wash down | 60 L / min., 3 bar | | | | | |
| Machine size | | | | | | |
| Height (mm) | 3,280 | | | | | |
| Floor space W x D (mm) | 4,150 x 3,800 | | | | | |
| Weight (kg) | 11,680 (30ATC) 11,960 (48ATC) 12,100 (60ATC) 12,820 (90ATC) | | | | | |
| Connections | | | | | | |
| Main power | 220V or 380V or 400V or 415V / 50Hz or 60Hz | | | | | |
| Power consumption (KVA) | 30(F) 35(T) | 38(T) 41.3(S) | | | 53(T) | |

● = Standard ○ = Option x = N / A

| Standard / Option accessories | UX600 | | UX600 | | | UX800 |
|---|------------|--------|--------|-----|-----|-------|
| | C | | P | | | P |
| | Multi face | 5 axes | 5 axes | | | |
| Spindle code | 12C | | 9B | 12B | 15C | 15C |
| ■ QUASER mill I (4+1 Axes) | ● | x | x | x | x | x |
| ■ HEIDENHAIN TNC620 (4+1 Axes) | ○ | x | x | x | x | x |
| ■ HEIDENHAIN TNC640 5 Axes) | x | ● | ○ | ● | ○ | ● |
| HEIDENHAIN advanced function set2 | x | ● | ○ | ● | ○ | ● |
| ■ SIEMENS 840D | x | x | ○ | ○ | ○ | x |
| ■ Oil chiller | ● | ● | ● | ● | ● | ● |
| ■ 40 taper / 30 position tool magazine | ● | ● | x | x | x | x |
| ■ 40 taper / 48 position tool magazine | ○ | ○ | ● | ● | ● | ● |
| ■ 40 taper / 60 position tool magazine | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ 40 taper / 90 position tool magazine | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Pull stud for BT tooling system | ○ | ○ | ● | ● | ● | ● |
| ■ Balance tooling for spindle warm up | ○ | ○ | ● | ● | ● | ● |
| ■ BBT spindle attachment (Simultaneous contact) | ● | ● | ● | ● | ● | ● |
| ■ ATC auto door | ● | ● | ● | ● | ● | ● |
| ■ X / Y / Z linear scale & C rotary encoder | ○ | ○ | ○ | ○ | ○ | ● |
| ■ Rotary encoder on A axes | ● | ● | ● | ● | ● | ● |
| ■ Remote manual pulse generator | ● | ● | ● | ● | ● | ● |
| ■ Transformer ⁽¹⁾ | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Work probe receive OMI-2T | ● | ● | ● | ● | ● | ● |
| ■ Work probe OMP-40 | ○ | ○ | ● | ● | ● | ● |
| ■ Tool length / breakage measurement | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Reference rod (for thermal comp with probe) | ● | ● | ● | ● | ● | ● |
| ■ 2 Port through table ⁽²⁾ | ○ | ○ | ● | ● | ● | ● |
| ■ Coolant system | ● | ● | ● | ● | ● | ● |
| ■ Coolant through ball screw | ○ | ○ | ● | ● | ● | ● |
| ■ Coolant through spindle 20 bar | ● | ● | ● | ● | ● | ● |
| ■ Coolant wash gun | ● | ● | ● | ● | ● | ● |
| ■ Coolant wash down | ● | ● | ● | ● | ● | ● |
| ■ Air gun | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Chip conveyor | ● | ● | ● | ● | ● | ● |
| ■ Chip augers | ● | ● | ● | ● | ● | ● |
| ■ Cutter air blast | ● | ● | ● | ● | ● | ● |
| ■ Stainless steel chip pan & chip channel | ● | ● | ● | ● | ● | ● |
| ■ Oil-mist collector | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Bag filtration | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Filtration unit | ○ | ○ | ○ | ○ | ○ | ○ |
| ■ Documentation (CD-ROM) ⁽³⁾ | ● | ● | ● | ● | ● | ● |
| ■ Total Enclosure Guard (with Top side cover) | ● | ● | ● | ● | ● | ● |
| ■ Work light | ● | ● | ● | ● | ● | ● |
| ■ Machine status light | ● | ● | ● | ● | ● | ● |
| ■ CE & EMC ⁽⁴⁾ / GB | ○ | ○ | ○ | ○ | ○ | ○ |

Note: ⁽¹⁾ Transformer as standard or option item will be varied according to control system and power supply condition.

⁽²⁾ UX800-5 port through table . ⁽³⁾ Paper documentation is option. ⁽⁴⁾ As standard for Europe area.

- Machine specification might be different from the catalog if there is any specification update.

UX500 Layout

Installation dimension

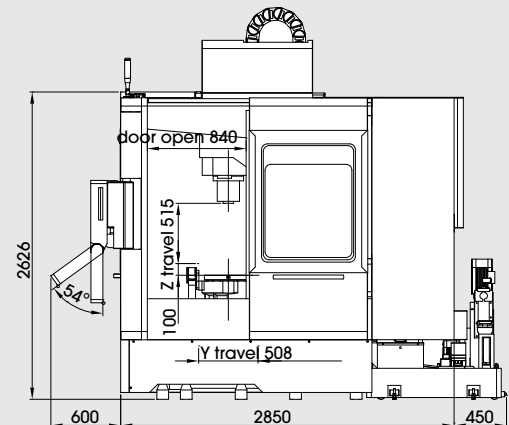
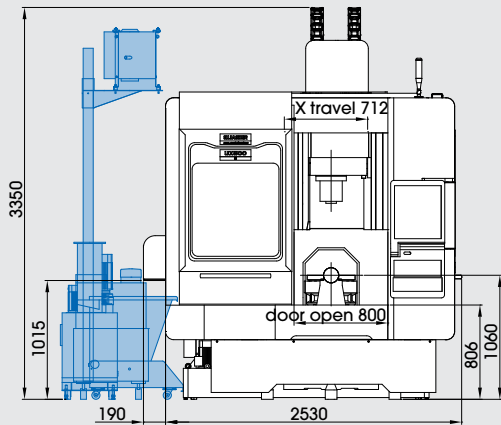
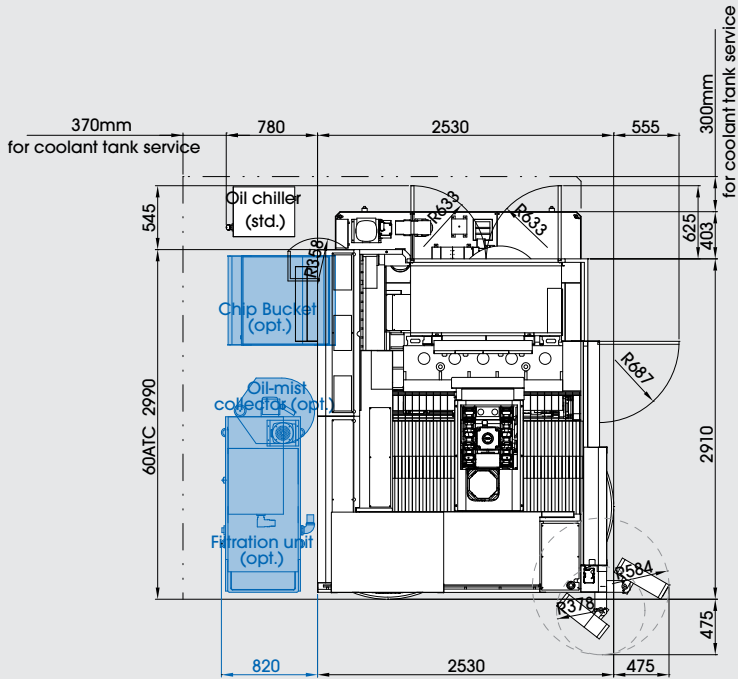
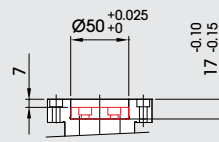
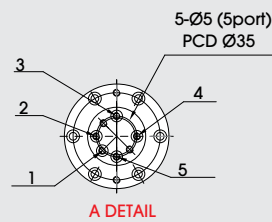
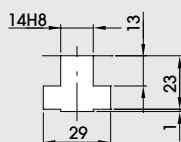
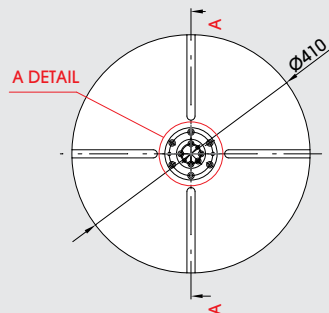


Table dimension



A-A SECTION

UX500APC Layout

Installation dimension

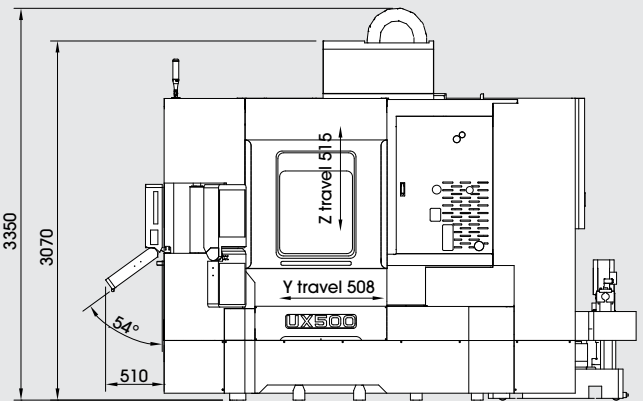
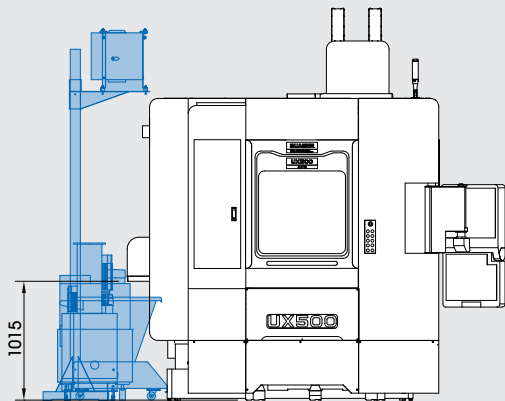
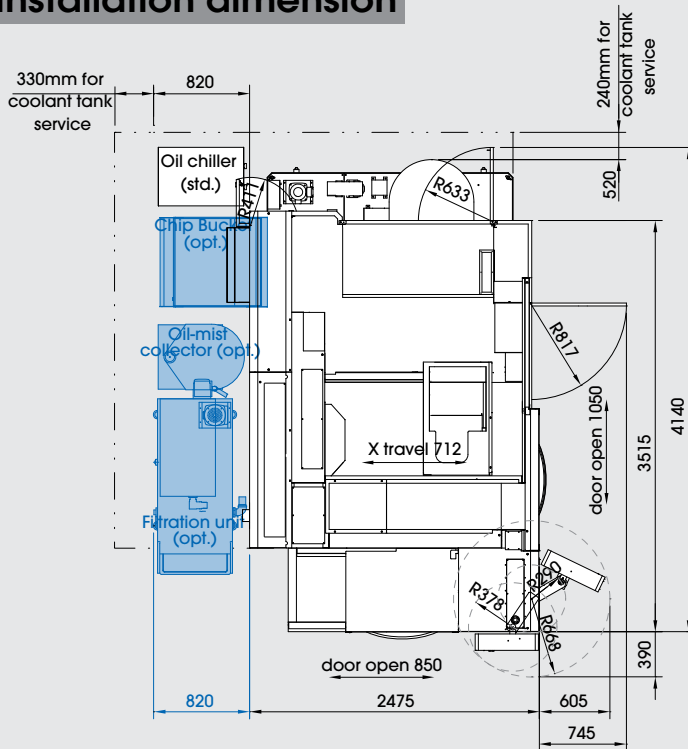
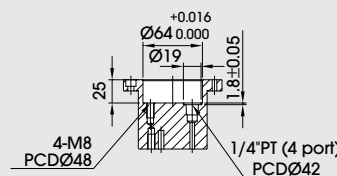
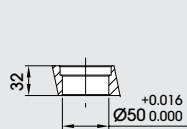
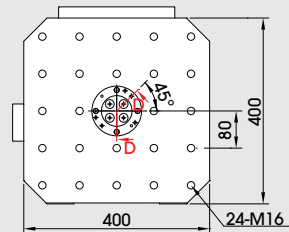
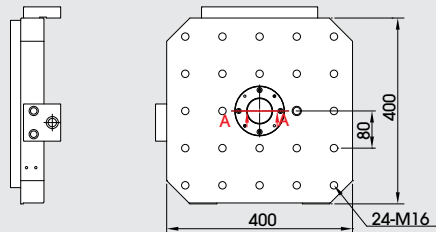
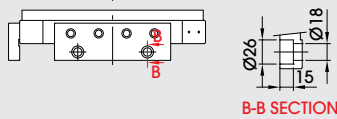


Table dimension



A-A SECTION

D-D SECTION

UX630 Layout

Installation dimension

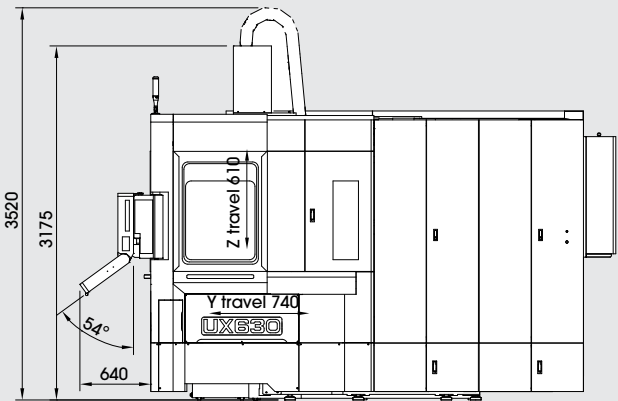
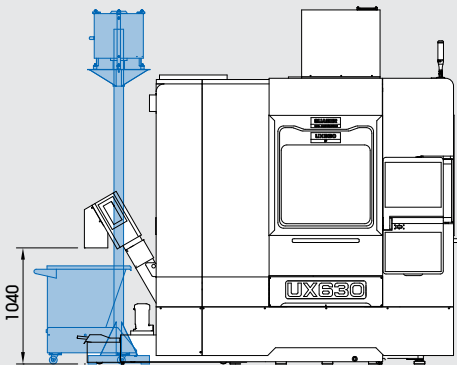
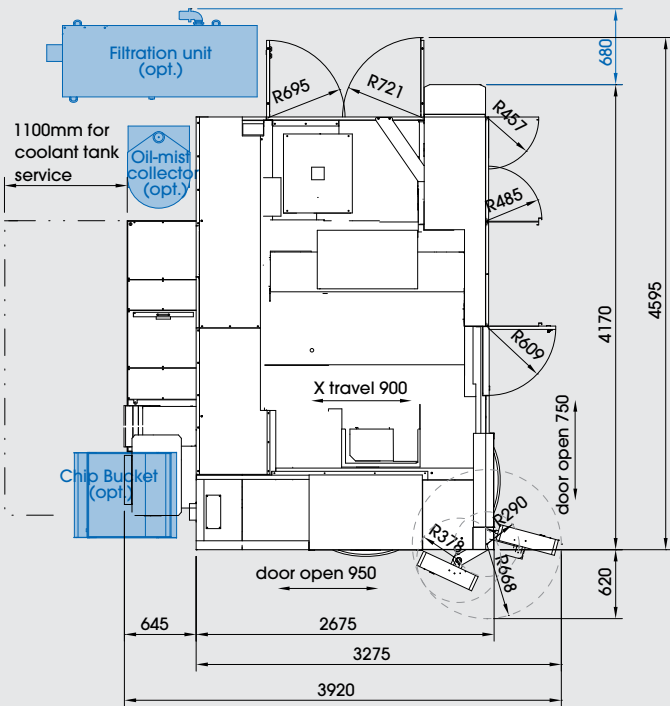
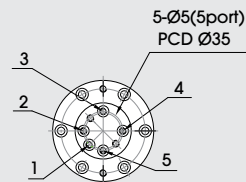
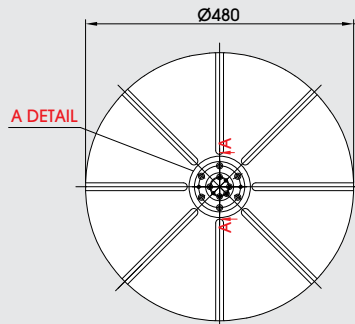
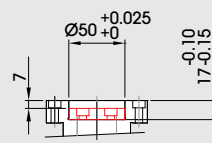
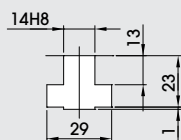


Table dimension



A DETAIL



A-A SECTION

UX630APC Layout

Installation dimension

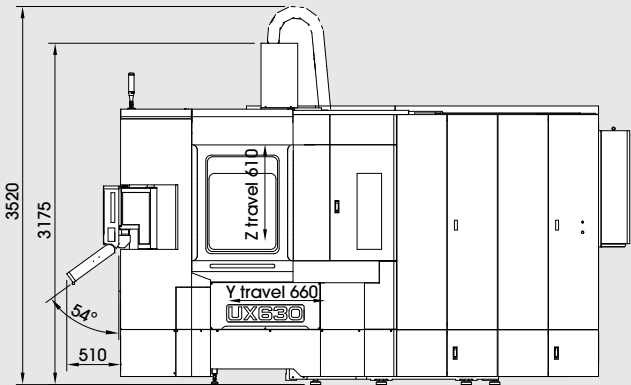
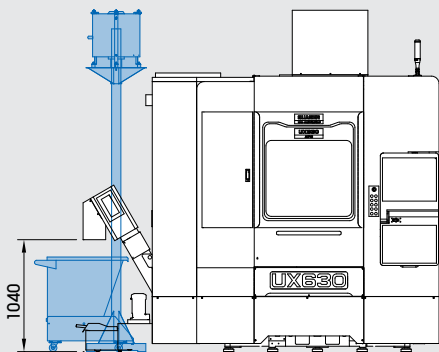
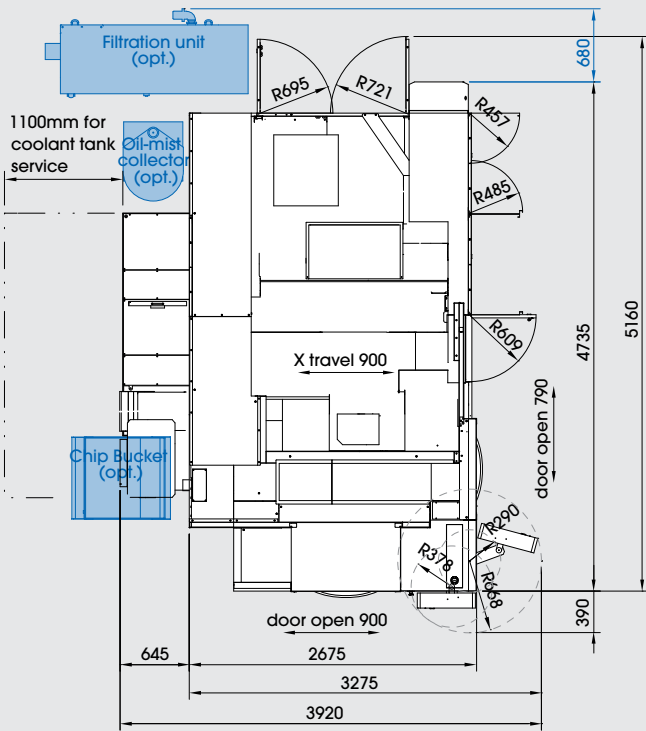
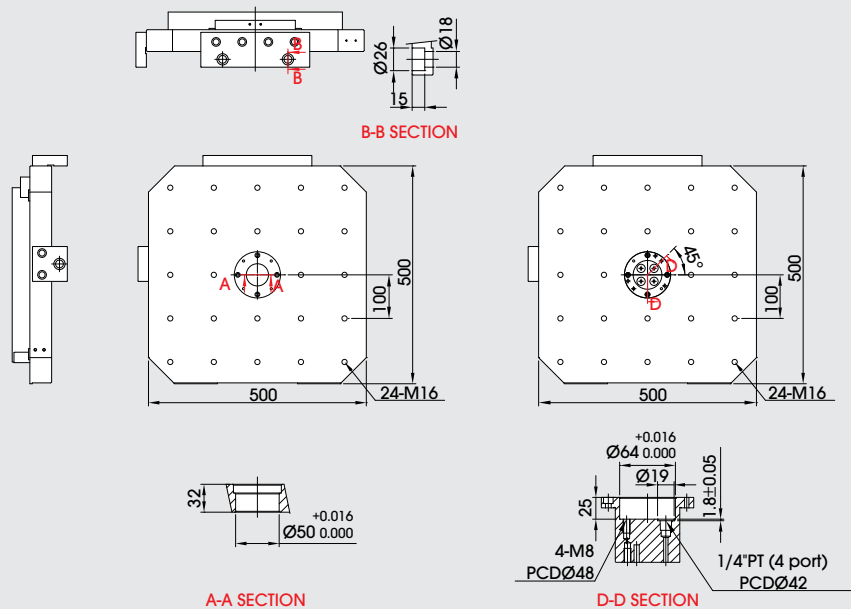
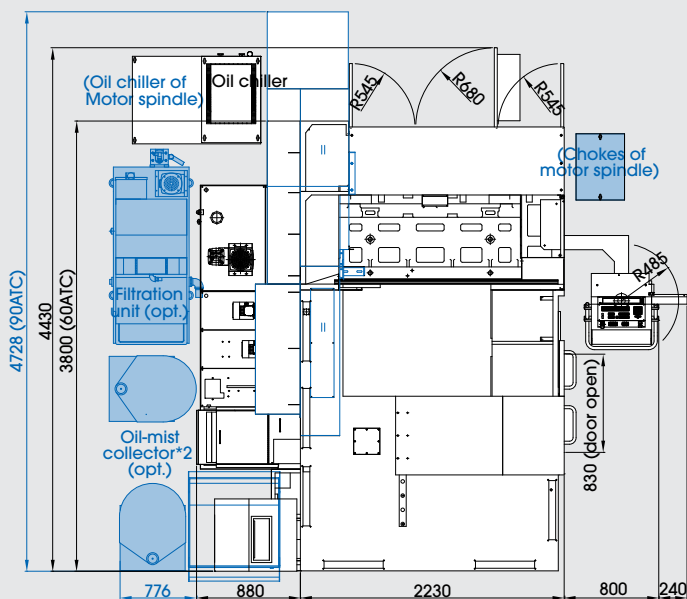


Table dimension



UX600 / UX800 Layout

Installation dimension



| | UX600 | UX800 |
|---|-------|-------|
| A | 1,024 | 978 |

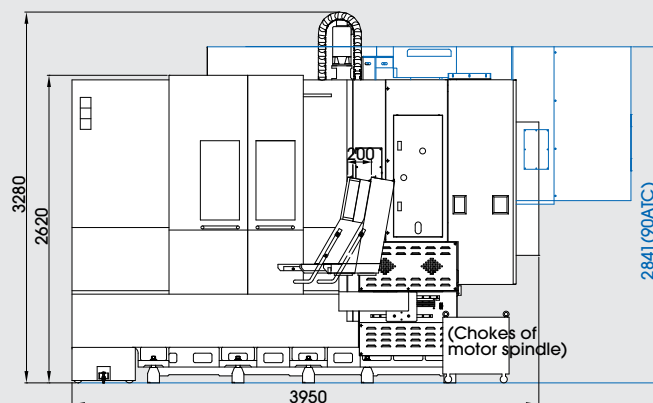
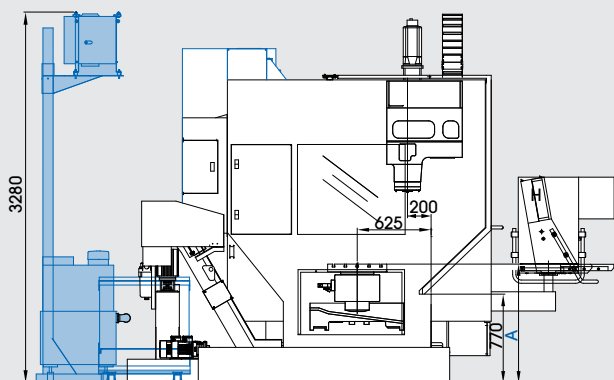
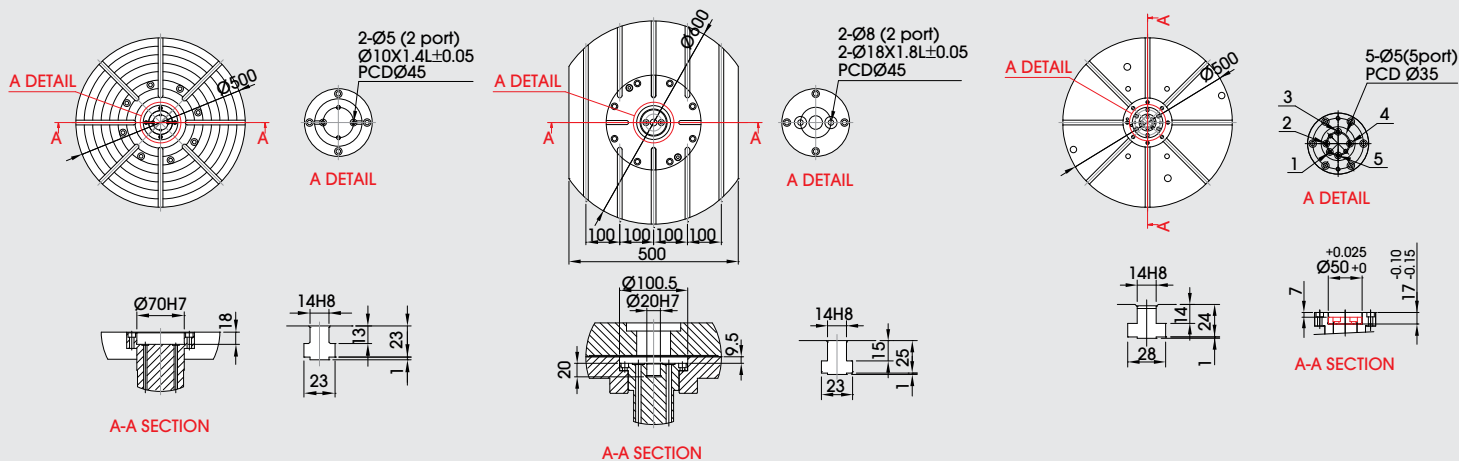


Table dimension



We build machines in a hybrid way

- Very classic craftsmanship combined with most advanced modern equipments in a clean environment...

QUASER MACHINE TOOLS, INC.

Address: No. 3, Gong 6th Rd., Youshih
Industrial Park, Dajia Dist,
Taichung City 437, Taiwan
Tel: +886 4 26821277
Fax: +886 4 26822045
E-mail: sales@qmt.com.tw
Web: www.quaser.com



QUASER EUROPE TECHNIC CENTER - SWITZERLAND

Address: Unterlettenstrasse 16, CH- 9443
Widnau Switzerland
Tel: +41 71 722 43 43
Mobile phone: +41798229028
E-mail: qe@qmt.com.tw



KUNSHAN QUASER MACHINE TOOLS, INC.

Address: (B) No. 287, Kangzhuang Road,
Zhoushi Town, Kunshan City,
Jiangsu, P.R. China
Tel: 0512-82627139
Fax: 0512-82627138
E-mail: qmtc@qmt.com.tw



QUASER AMERICA MACHINE TOOLS INC.

Address: 3049 Southcross Boulevard, Rock Hill,
SC, 29730, UNITED STATES
Tel: +1 803-324-7123
Fax: +1 888-459-8175
E-mail: qa@qmt.com.tw





**QUASER MACHINE TOOLS,
INC.**

Address: No. 3, Gong 6th Rd.,
Youshih Industrial Park,
Dajia Dist, Taichung City
437, Taiwan

Tel: +886 4 26821277
Fax: +886 4 26822045
E-mail: sales@qmt.com.tw
Web: www.quaser.com

**QUASER EUROPE TECHNIC
CENTER - SWITZERLAND**

Address: Unterleffenstrasse
16, CH- 9443 Widnau
Switzerland

Tel: +41 71 722 43 43
Mobile phone: +41798229028
E-mail: qe@qmt.com.tw

**KUNSHAN QUASER MACHINE
TOOLS, INC.**

Address: (B) No. 287, Kangzhuang
Road, Zhoushi Town,
Kunshan City, Jiangsu,P.
R. China

Tel: 0512-82627139
Fax: 0512-82627138
E-mail: qmtc@qmt.com.tw

**QUASER AMERICA MACHINE
TOOLS INC.**

Address: 3049 Southcross
Boulevard,Rock Hill,
SC, 29730, UNITED STATES

Tel: +1 803-324-7123
Fax: +1 888-459-8175
E-mail: qa@qmt.com.tw

Fold here for filing!